

JOSEPH J. KORTE

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Education:

BS Biology, University of Minnesota, Duluth, MN 1982
BA Chemistry, University of Minnesota, Duluth, MN 1982
MS Chemistry, University of Minnesota, Duluth, MN 1985

Employment:

1997-Present Chemist, U.S. EPA, Duluth, MN
1985-1997 Assistant Scientist, University of Minnesota, Duluth, MN

Research Interests and Skills:

Development of methods for analysis and quantification of DNA, RNA, proteins, and hormones, using QPCR, RIA, ELISA, Western blots, etc.

Selected Publications:

- Helbing CC, Bailey CM, Ji L, Gunderson MP, Zhang F, Veldhoen N, Skirrow RC, Mu R, Lesperance M, Holcombe GW, Kosian PA, Tietge J, Korte JJ, and Degitz SJ. Identification of gene expression indicators for thyroid axis disruption in a *Xenopus laevis* metamorphosis screening assay: Part 1. Effects on the brain. *Aquatic Toxicology*. 2007; 82(4):227-241.
- Helbing CC, Ji L, Bailey CM, Veldhoen N, Zhang F, , Holcombe GW, Kosian PA, Tietge J, Korte JJ, and Degitz SJ. Identification of gene expression indicators for thyroid axis disruption in a *Xenopus laevis* metamorphosis screening assay: Part 2. Effects on the tail and hindlimb. *Aquatic Toxicology*. 2007; 82(4):215-226.
- Villeneuve DL, Miracle AL, Jensen KM, Degitz SJ, Kahl MD, Korte JJ, Greene KJ, Blake LS, Linnun AL, and Ankley GT. Development of quantitative real-time PCR assays for fathead minnow (*Pimephales promelas*) gonadotropin [β] subunit mRNAs to support endocrine disruptor research. *Comparative Biochemistry and Physiology Part C: Toxicology & Pharmacology*. 2007; 145(2):171-183.
- Degitz SJ, Holcombe GW, Flynn KM, Kosian PA, Korte JJ, and Tietge JE. Progress towards development of an amphibian-based thyroid screening assay using *xenopus laevis*. organismal and thyroidal responses to the model compounds 6-propylthiouracil, methimazole, and thyroxine. *Toxicological Sciences*. 2005; 87(2): 353-364.
- Tietge JE, Holcombe GW, Flynn KM, Kosian PA, Korte JJ, Anderson LE, Wolf DC, and Degitz SJ. Metamorphic inhibition of *xenopus laevis* by sodium perchlorate: effects on development and thyroid histology. *Environmental Toxicology and Chemistry*. 2005; 24(4):926-933.
- Korte JJ, Mylchreest E, and Ankley GT. Comparative evaluation of ELISAs for detecting vitellogenin in the fathead minnow (*Pimephales promelas*)—a response to Tyler et al. *Comp Biochem Physiol C*. 2004; 138:533-536.
- Hornung MW, Jensen KM, Korte JJ, Kahl MD, Durhan EJ, Denny JS, Henry TR, and Ankley GT. Mechanistic basis for estrogenic effects in fathead minnow (*Pimephales promelas*) following exposure to the androgen 17[α]-methyltestosterone: conversion of 17[α]-methyltestosterone to 17[α]-methylestradiol. *Aquatic Toxicology*. 2004; 66(1):15-23.
- Jensen KM, Kahl MD, Makynen EA, Korte JJ, Leino RL, Butterworth BC, and Ankley GT. Characterization of responses to the antiandrogen flutamide in a short-term reproduction assay with the fathead minnow. *Aquatic Toxicology*. 2004; 70(2):99-110.
- Wilson VS, Cardon MC, Thornton J, Korte JJ, Ankley GT, Welch J, Gray LE, and Hartig, PC. Cloning and in vitro expression and characterization of the androgen receptor and isolation of estrogen receptor alpha from the fathead minnow (*pimephales promelas*). *Environmental Science & Technology*. 2004; 38(23):6314-6321.
- Ankley GT, Jensen KM, Makynen EA, Kahl MD, Korte JJ, Hornung MW, Henry TR, Denny JS, Leino RL, Wilson VS, Cardon MC, Hartig PC, and Gray LE. Effects of the androgenic growth promoter 17- β -trenbolone on fecundity and reproductive endocrinology of the fathead minnow. *Environmental Toxicology and Chemistry*. 2003; 22(6):1350-1360.
- Mylchreest E, Snajdr S, Korte JJ, and Ankley GT. Comparison of ELISAs for detecting vitellogenin in the fathead minnow (*Pimephales promelas*), *Comp Biochem Physiol C*. 2003; 134:251–257.

- Ankley GT, Kahl MD, Jensen, KM, Hornung MW, Korte JJ, Makynen EA, and Leino RL. Evaluation of the aromatase inhibitor fadrozole in a short-term reproduction assay with the fathead minnow (*pimephales promelas*). *Toxicological Sciences*. 2002; 67(1):121-130.
- Gray LE, Ostby J, Wilson V, Lambright C, Bobseine K, Hartig P, Hotchkiss A, Wold C, Furr J, Price M, Parks L, Cooper R, Stoker T, Laws S, Degitz SJ, Jensen KM, Kahl MD, Korte JJ, Makynen EA, Tietge JE, and Ankley GT. Xenoendocrine disruptors - tiered screening and testing: Filling key data gaps. *Toxicology*. 2002; 181-182:371-382.
- Ankley GT, Jensen KM, Kahl MD, Korte JJ, and Makynen EA. Description and evaluation of a short-term reproduction test with the fathead minnow (*pimephales promelas*). *Environmental Toxicology and Chemistry*. 2001; 20(6):1276-1290.
- Korte JJ, Kahl MD, Jensen KM, Pasha MS, Parks LG, LeBlanc GA, and Ankley GT. Fathead minnow vitellogenin: complementary DNA sequence and messenger RNA and protein expression after 17 β -estradiol treatment. *Environmental Toxicology and Chemistry*. 2000; 19(4):972-981.
- Kong H, Edberg DD, Salo WL, Korte JJ, Wright PA, and Anderson PM. Nitrogen excretion and expression of carbamoyl-phosphate synthetase III in extra-hepatic tissues of largemouth bass (*Micropterus salmoides*). *Archives of Biochemistry and Biophysics*. 1998; 350(2):157-168.
- Korte JJ, Salo WL, Cabrera VM, Wright PA, Felskie AK, and Anderson PM. Expression of carbamoyl-phosphate synthetase III mRNA during the early stages of development and in muscle of adult rainbow trout (*Oncorhynchus mykiss*). *J Biol Chem*. 1997; 272(10):6270-6277.
- Zhou X, Korte JJ, and Anderson PM. Purification and properties of two malic enzyme activities in liver mitochondria of *Squalus acanthias* (spiny dogfish). *J Exp Zool*. 1995; 272:201-212.
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- Anderson PM, Korte JJ, and Holcomb TA. Reaction of the N-terminal methionine residues in cyanase with diethylpyrocarbonate. *Biochemistry*. 1994; 33(47):14121-14125.
- Guilloton MB, Korte JJ, Lamblin AF, Fuchs JA, and Anderson PM. Carbonic anhydrase in *Escherichia coli*. A product of the cyn operon. *J Biol Chem*. 1992; 267(6):3731-3734.
- Prohaska JR, Bailey WR, Gross AM, and Korte JJ. Effect of dietary copper deficiency on the distribution of dopamine and norepinephrine in mice and rats. *J Nutr Biochem*. 1990; 1:149-154.
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- Korte JJ, Prohaska JR. Dietary copper deficiency alters protein and lipid composition of murine lymphocyte plasma membranes. *J Nutr*. 1987; 117(6):1076-1084.
- Prohaska JR, Korte JJ, and Bailey WR. Serum cholesterol levels are not elevated in young copper-deficient rats, mice or brindled mice. *J Nutr*. 1985; 115(12):1702-1707.